

sub
a1

WHAT IS CLAIMED IS:

1 1. For use in a wireless network comprising a plurality of
2 base stations, each of said base stations capable of communicating
3 with a plurality of mobile stations, a security device capable of
4 preventing an unprovisioned one of said plurality of mobile
5 stations from accessing an Internet protocol (IP) data network
6 through said wireless network, said security device comprising:

7 a first controller capable of receiving from said
unprovisioned mobile station an IP data packet comprising an IP
packet header and an IP packet payload and encrypting at least a
portion of said IP packet payload.

2. The security device set forth in Claim 1 wherein said
first controller is disposed in at least one of said plurality of
base stations.

1 3. The security device set forth in Claim 1 wherein said
2 first controller is disposed in at least one of a mobile switching
3 center and an interworking function of said wireless network.

1 4. The security device set forth in Claim 1 further
2 comprising a second controller capable of determining that said
3 unprovisioned mobile station is unprovisioned.

1 5. The security device set forth in Claim 1 wherein said
2 second controller determines that said unprovisioned mobile station
3 is unprovisioned if said unprovisioned mobile station is unable to
4 authenticate to said wireless network.

1 6. The security device set forth in Claim 1 wherein said
2 second controller determines that said unprovisioned mobile station
3 is unprovisioned according to a predetermined telephone number
4 associated with a service provisioning process selected by said
unprovisioned mobile station.

1 7. The security device set forth in Claim 1 wherein said
2 second controller determines that said unprovisioned mobile station
3 is unprovisioned according to data retrieved from a home location
4 register associated with said wireless network.

1 8. The security device set forth in Claim 1 wherein said
2 first controller comprises a data processor capable of executing an
3 encryption program stored in a memory associated with said data
4 processor.

1 9. A wireless network comprising:
2 a plurality of base stations, each of said base stations
3 capable of communicating with a plurality of mobile stations; and
4 a security device capable of preventing an unprovisioned
5 one of said plurality of mobile stations from accessing an Internet
6 protocol (IP) data network through said wireless network, said
7 security device comprising:

8 a first controller capable of receiving from said
9 unprovisioned mobile station an IP data packet comprising
10 an IP packet header and an IP packet payload and
11 encrypting at least a portion of said IP packet payload.

1 10. The wireless network set forth in Claim 9 wherein said
2 first controller is disposed in at least one of said plurality of
3 base stations.

1 11. The wireless network set forth in Claim 9 wherein said
2 first controller is disposed in at least one of a mobile switching
3 center and an interworking function of said wireless network.

1 12. The wireless network set forth in Claim 9 further
2 comprising a second controller capable of determining that said
3 unprovisioned mobile station is unprovisioned.

1 13. The wireless network set forth in Claim 9 wherein said
2 second controller determines that said unprovisioned mobile station
3 is unprovisioned if said unprovisioned mobile station is unable to
4 authenticate to said wireless network.

1 14. The wireless network set forth in Claim 9 wherein said
2 second controller determines that said unprovisioned mobile station
3 is unprovisioned according to a predetermined telephone number
4 associated with a service provisioning process selected by said
unprovisioned mobile station.

1 15. The wireless network set forth in Claim 9 wherein said
2 second controller determines that said unprovisioned mobile station
3 is unprovisioned according to data retrieved from a home location
4 register associated with said wireless network.

1 16. The wireless network set forth in Claim 9 wherein said
2 first controller comprises a data processor capable of executing an
3 encryption program stored in a memory associated with said data
4 processor.

1 17. For use in a wireless network comprising a plurality of
2 base stations, each of the base stations capable of communicating
3 with a plurality of mobile stations, a method of preventing an
4 unprovisioned one of the plurality of mobile stations from
5 accessing an Internet protocol (IP) data network through the
6 wireless network, the method comprising the steps of:

7 receiving from the unprovisioned mobile station an IP
8 data packet comprising an IP packet header and an IP packet
9 payload;

10 determining that the unprovisioned mobile station is
11 unprovisioned; and

12 encrypting at least a portion of the IP packet payload.

13
14
15
16
17
18. The method set forth in Claim 17 wherein the step of
19 determining comprises the step of determining that the
20 unprovisioned mobile station is unable to authenticate to the
21 wireless network.
22
23
24

19. The method set forth in Claim 17 wherein the step of determining comprises the step of determining that the unprovisioned mobile station selected a predetermined telephone number associated with a service provisioning process.

20. The method set forth in Claim 17 wherein the step of determining that the unprovisioned mobile station is unprovisioned comprises the step of examining data retrieved from a home location register associated with the wireless network.